ABSTRACT OF THE DISCLOSURE

present in a composition. A reagent is utilized to selectively dissolve portions of the composition relative to other portions of the composition, and thereafter is filtered through a substrate. After the filtering, the substrate is scanned with a microscope. The scanning comprises automated displacement of the substrate relative to an observing portion of the microscope along a grid pattern. The microscope obtains data about the non-dissolved portions at locations along the grid pattern. The data is processed to generate information about the size and quantity of the non-dissolved portions of the composition. The invention also encompasses a method of generating information about impurities present in a metal composition. A reagent is utilized to selectively dissolve metallic portions of the composition relative to at least some impurities present in the metal composition, and to thus form a solution. The impurities comprise at least two different types, with one of the at least two types being a first type and the another of the at least two types being a second type. The solution is filtered through a substrate. After the filtering, the substrate is scanned with a microscope. The microscope obtains data about the impurities which includes a relative darkness of the impurities relative to a background defined by the substrate. The first type of impurities are darker than the background, and the second type of impurities are lighter than the background. The data is processed to generate information about the size, quantity and type of the impurities.

The invention encompasses a method of generating information about materials

10

20

30-5074 (4015)